

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant	:	Nissen, et al.		
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For	:	COMPRESSED CHEWING GUM		

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is in support of Applicant's Notice of Appeal filed on May 18, 2010.

APPEAL BRIEF

TABLE OF CONTENTS

I.	Real Party in Interest.....	3
II.	Related Appeals and Interferences.....	4
III.	Status of Claims.....	5
IV.	Status of Amendments.....	6
V.	Summary of Claimed Subject Matter.....	7
VI.	Grounds of Rejection to be Reviewed on Appeal.....	11
VII.	Argument.....	12
A.	Claims 1, 3-5, 8-12, 14-19, and 28-32 are not properly rejected under 35 U.S.C. 103(a) over Cherukuri et al. (US 4,753,805) in view of Hinzpeter et al. (US 5,643,630).....	13
1)	Claims 1, 3-5, 8-12, 14-19, 32.....	17
2)	Claims 28-31	28
B.	Claims 1, 3-5, 8-12, 14-19, and 28-32 are not properly rejected under 35 U.S.C. 103(a) over Yang (EP 0 221 850) in view of Hinzpeter et al. (US 5,643,630).....	29
1)	Claims 1, 3-5, 8-12, 14-19, 32.....	32
2)	Claims 28-31	42
VIII.	CLAIMS APPENDIX.....	44
IX.	EVIDENCE APPENDIX	48
X.	RELATED PROCEEDINGS APPENDIX.....	49

I. Real Party in Interest

The real party in interest for the present application is Gumlink A/S, which is the assignee. Gumlink A/S is the assignee of record per an assignment recorded, on March 3, 2005, by inventor Vibeke Nissen.

II. Related Appeals and Interferences

To the best of the Applicant's knowledge, there are no appeals or interferences which are directly related to the present appeal.

III. Status of Claims

Claims 1-33 were originally filed in the present application and have been amended a number of times in response to objections as set forth in paper no. 20080205, paper no. 20081022 and paper no. 20090526. Claims 2, 6-7, 13, 20-27 and 33 have been cancelled. Present claims 1, 3-5, 8-12, 14-19, and 28-32 are the subject of the present appeal and is set forth in the Appendix (section VIII) to this appeal brief.

IV. Status of Amendments

There have been no amendments to the claims or specification filed after the final rejection.

V. Summary of the Claimed Subject Matter

The present technology is directed to a compressed chewing gum tablet.

Within the chewing gum art, compressed chewing gum is clearly distinct from conventionally mixed chewing gum. The conventionally mixed chewing gum generally benefits from a very comfortable texture, while one disadvantage is that some of the chewing gum additives may be damaged during the mixing process.

In contrast, compressed chewing gum generally benefits from a relatively gentle handling of vulnerable additives. The compression of gum base granules together with chewing gum additives is a relatively lenient gathering of a chewing gum as compared to conventional mixing of chewing gum. However, the resulting compressed chewing gum may be associated with problems of crumbling and disintegration. These problems may be encountered especially in the initial part of the chewing period.

The objective of the present invention is to obtain a compressed chewing gum provided with a texture like conventionally mixed chewing gum. In this connection, it is desired to provide gum base granules, which are suitable for forming such a chewing gum by compression.

According to the present invention, this objective has been reached according to the provisions set forth in present claim 1. The chewing gum tablet comprises a chewing gum center fully or partly encapsulated by a barrier layer, where the gum center comprises a compression of gum base granules and chewing gum additives. The gum base granules have a moderated tackiness obtained by at least one natural resin incorporated in at least a part of the gum base

granules. The natural resin provides an improved and sticky texture to the tablet. The barrier layer comprises at least one of lubricants, anti-adherents, or glidants, and the barrier layer is provided during the manufacturing of the chewing gum tablet.

According to the invention, the moderated tackiness of the gum base granules should simply be enough to keep the compressed gum base granules together, especially during the initial chew. (Application, page 2, lines 22-24)

According to the invention it is now possible to obtain a chewing gum tablet, made by means of compression of a gum base granulate and chewing gum additives, having an acceptable and improved immediate initial texture. (Application, page 3, lines 2-4)

According to the invention, it is possible to obtain the desired texture by means of natural resins mixed into the gum base previous to the compression of gum base granulates. (Application, page 3, lines 6-8)

Moreover, according to the invention, it has been recognized that the natural resin facilitates an advantageous overall flavor release when the compressed chewing gum tablet is chewed. This may partly be due to the fact that the initial chewing of the gum tablet results in an immediate release of distinct flavor particle and at the same time, that a part of the dissolved flavor particles reacts or become incorporated into the chewing gum base. (Application, page 4, lines 17-22)

Moreover, according to the invention, the applied barrier layer may form or form part of a humidity barrier. Due to the fact that relatively low water content is preferred according to an embodiment of the invention, the tablet should preferably be protected against too much absorption of humidity from the air. (Application, page 4, lines 24-27)

In accordance with claim 28, the present technology is also directed to a method of providing a compressed chewing gum. The method comprises a step of mixing at least one elastomer and at least one plasticizer into a homogeneous gum base, where the gum base comprises about 5% to 75% by weight of natural resin. The method further comprises the steps of granulating the gum base, blending the granulated gum base with chewing gum additives, depositing a barrier layer on at least a part of a chewing gum center formed by gum base granules and chewing gum additives; and finally compressing the mixture into a tablet.

For the grouping of the claims, Applicant suggests the following groupings:

Group I:	Claims 1, 3-5, 8-12, 14-19, 32
Group II:	Claims 28-31

Group I is directed to a compressed chewing gum tablet. The chewing gum tablet comprises a chewing gum center fully or partly encapsulated by a barrier layer, where the gum center comprises a compression of gum base granules and chewing gum additives. The gum base granules have a moderated tackiness obtained by at least one natural resin incorporated in at least a part of the gum base granules. The natural resin provides an improved and sticky texture to the tablet. The barrier layer comprises at least one of lubricants, anti-adherents, or glidants, and the barrier layer is provided during the manufacturing of the chewing gum tablet.

Group II is directed to a method of providing a compressed chewing gum. The method comprises a step of mixing at least one elastomer and at least one plasticizer into a homogeneous

gum base, where the gum base comprises about 5% to 75% by weight of natural resin. The method further comprises the steps of granulating the gum base, blending the granulated gum base with chewing gum additives, depositing a barrier layer on at least a part of a chewing gum center formed by gum base granules and chewing gum additives; and finally compressing the mixture into a tablet.

VI. Grounds of Rejection to be Reviewed on Appeal

There are two grounds of rejection to be reviewed on appeal. It should be noted that the provisional rejections of claims 1-6, 8-12, 14-19 and 28-32 in the form of obviousness-type double patenting rejections over claims 1-20 and 34 of co-pending Application No. 10/520,387 and claims 1-55 of co-pending Application No. 11/028,684 from the Final Office Action are acknowledged and these rejections are **not** being appealed, but will be addressed after the appeal on the merits is decided should such be necessary. The grounds of rejection to be reviewed on appeal are as follows:

- A. The rejection of claims 1, 3-5, 8-12, 14-19, and 28-32 under 35 U.S.C. §103(a) as obvious over Cherukuri et al. (US 4,753,805) in view of Hinzpeter et al. (US 5,643,630).
- B. The rejection of claims 1, 3-5, 8-12, 14-19, and 28-32 under 35 U.S.C. §103(a) as obvious over Yang (EP 0 221 850) in view of Hinzpeter et al. (US 5,643,630).

VII. Argument

An invention is not patentable “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”¹ For a claim to be rejected as obvious, the Office is required to determine the scope and content of the prior art, ascertain the differences between the claimed invention and the prior art, and resolve the level of ordinary skill in the art.² This analysis must be set forth explicitly.³ When considering the prior art, the office is required to consider the prior art as a whole, and may not disregard portions of the art which show that an invention is not obvious.⁴ Additionally, it is important to guard against the use of hindsight when evaluating whether a claim is obvious.⁵ As a guard against hindsight, courts have identified certain scenarios in which it is improper to reject a claim as obvious. For example, a claim cannot properly be rejected as obvious when the principle of operation of the prior art would need to be modified to obtain the claimed invention.⁶ Similarly, if a prior art reference teaches away from a claimed invention, then the claimed invention is not obvious over that prior art.⁷ Given these standards, the Office’s rejections under 35 U.S.C. § 103(a) cannot be sustained and must be reversed for the reasons set forth below.

¹ 35 U.S.C. § 103(a).

² *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007); MPEP § 2141, citing *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

³ *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007).

⁴ *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983).

⁵ E.g., *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (“A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.”).

⁶ *In re Ratti*, 270 F.2d 810 (CCPA 1959) (cited in MPEP 2143.01 for the proposition that “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.”).

- A. Claims 1, 3-5, 8-12, 14-19, and 28-32 are not properly rejected under 35 U.S.C. §103(a) as obvious over Cherukuri et al. (US 4,753,805) in view of Hinzpeter et al. (US 5,643,630).

The Examiner has improperly rejected claims 1, 3-5, 8-12, 14-19, and 28-32 under 35 U.S.C. §103(a) as being unpatentable over Cherukuri et al. (US 4,753,805) in view of Hinzpeter et al. (US 5,643,630). A summary of these rejections follows:

According to the rejection as set forth in paragraphs no. 6 and 7, paper no. 20100218, it is noted that Cherukuri et al. are silent as to the "improved and sticky" texture of the tablet resulting from the inclusion of the natural resin. However, the examiner contends that as the invention of Cherukuri et al. comprises the same ingredients as claimed by Applicants in substantially similar amounts, this improved texture would have been expected to be present in the invention of Cherukuri et al. absent convincing arguments or evidence to the contrary. However, the examiner acknowledges that Cherukuri et al. are silent as to the gum center being encapsulated by the barrier layer.

According to the rejection as set forth in paragraphs no. 9, paper no. 20100218, the examiner contends, that one of ordinary skill in the art at the time the invention was made wishing to improve the compressed tablet of Cherukuri et al. the process by which it was made by providing a barrier layer using less magnesium stearate or other lubricant, would have found it obvious to employ the tableting method of Hinzpeter et al. for tableting the chewing gum of Cherukuri et al. in order to provide a tabletted chewing gum with a barrier layer while requiring

⁷ See MPEP § 2145 citing *In re Grasselli*, 713 F.2d 731 (Fed. Cir. 1983).

less lubricant and reducing the wear on the production equipment. The examiner further contends that the use of magnesium stearate as a barrier layer for tabletted materials, as taught by Hinzpeter et al., instead of mixing with the granulated chewing gum material as taught by Cherukuri et al., would have been an obvious improvement of the prior art method at the time the invention was made.

According to the rejections as set forth in paragraph no. 22, paper no. 20100218, the Examiner contends that applicant's remarks regarding that Hinzpeter et al. is non analogous art is inappropriate with reference to *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The examiner states that Cherukuri et al. is in the field of tabletted chewing gums, and Hinzpeter et al. is in the field of tableting materials, and that as Hinzpeter et al. speak to lubricants commonly used in tableting devices, such as those that would have been used in tableting chewing gums, all of the references are considered to be pertinent to the particular problem with which Applicant was concerned.

According to the rejections as set forth in paragraph no. 24, paper no. 20100218, the examiner responds to applicant's argument that Cherukuri et al. do not speak to a barrier layer of lubricant improving the compressed tablets, by stating that the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious with reference to *Exparte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In paragraph no. 25, paper no. 20100218, the examiner states that while the prior art may not have recognized the effects on the texture of the chewing gum, as noted by the instant invention, there is motivation in the prior art to modify the tableting process. This motivation

the examiner believes is found in teachings of Hinzpeter, where the examiner contends that a barrier layer in the tableting process would have been expected to reduce the amount of lubricant (i.e. stearates) used in the tablet, as well as reduce the wear on the tableting machinery.

In paragraph no. 28, paper no. 20100218, the examiner states:

Arguments against Cherukuri et al. and Yang et al. where the texture of their chewing gum compositions would not be the same are not persuasive as the arguments do not take into consideration that the combination of Cherukuri et al. or Yang et al. with Hinzpeter et al. provides for the barrier layer to be encapsulating the chewing gum portion, not mixed in with the gum components. Both Cherukuri et al. and Yang et al. disclose stearates as the lubricating materials.

In paragraph no. 30, paper no. 20100218, the examiner refers to Table 1 of Cherukuri et al. as disclosing a composition comprising gum base which is granulated. In the same paragraph the examiner refers to col. 6, lines 25-42 of Cherukuri et al. where examples of elastomer solvents are mentioned, and it is noted by the examiner that these correspond to the natural resins of the present invention and are furthermore well known and widely utilized in the chewing gum art. Finally the examiner recognizes that Cherukuri et al. do not disclose the exact composition of the gum base in Table 1, however states that the inclusion of these natural resins in the gum base is clearly taught.

Before addressing the arguments from the examiner, Applicant would like to state some general thoughts regarding the combination of the prior art documents as done by the examiner.

Prior art document Cherukuri et al. related to tabletted chewing gum has been drawn up, and Applicant agrees that such document would form a relevant teaching for a person of ordinary skill in the art seeking to prepare a tabletted chewing gum.

However, as regards the patent by Hinzpeter, it should be noted that this is found within a different technical field, not related to chewing gum, but relating to tableting in general. Also, none of the classifications by search classes of Hinzpeter are overlapping with those of Cherukuri et al.

It can be argued, of course, that the teachings of tableting in general are relevant for tabletted chewing gum, but it should be kept in mind that the character of chewing gum base materials is very different from conventional tabletted materials and moreover that both conventional chewing gum and tableting in general have been known for many years without tabletted chewing gum on the market. In recent times, however, Applicant has succeeded in providing a compressed, i.e. tabletted, chewing gum with a texture resembling conventional chewing gum and brought it to the market.

It is noted that the Examiner with reference to *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) states that “*As Hinzpeter et al. speak to lubricants commonly used in tableting devices, such as those that would have been used in tableting chewing gums, all of the references are considered to be pertinent to the particular problem with which Applicant was concerned*” and hence a combination between the field of compressed chewing gum and the field of tableting devices is sought justified.

The Applicant does not agree and our arguments regarding the huge difference between these two fields still stand; however, even if the documents in question are combined, Applicant respectfully states that this will not lead to the present invention, which is strongly supported by the arguments herein.

1) Claims 1, 3-5, 8-12, 14-19, 32

Cherukuri (US 4,753,805) is directed to tableted chewing gum compositions comprising a blend of chewing gum granules and a compression aid which is formed into tablets having a moisture content of about 2% to about 8% by weight of the tablet chewing gum composition (Cherukuri, col. 1, lines 10-15).

Firstly the teaching of Cherukuri regarding the position of lubricants, glidants and anti-adherents, will be explained.

Cherukuri describes the manufacture of tabletted chewing gum as a process involving the steps of (Cherukuri, claim 1 and col. 3, lines 7-16):

- 1) preparing a chewing gum composition comprising gum base and sweetener;
- 2) grinding the chewing gum composition by utilizing a grinding aid to form a granulation;
- 3) blending the granulation with a compression aid;
- 4) compressing the granulation to form a tablet.

The grinding aid according to Cherukuri is selected from alkalimetal phosphates, alkaline earth metal phosphates and maltodextrins (Cherukuri, col. 4, lines 1-4). The granulation, i.e. the chewing gum granules, can according to Cherukuri be formed using standard grinding techniques known in the art (Cherukuri, col. 4, lines 26-28).

The compression aid according to Cherukuri is described as a combination of three individual components (Cherukuri, col. 5, lines 62-63 and col. 6, lines 3-4). The three components of compression aid are lubricants, glidants and anti-adherents (Cherukuri col. 4, line

34 – col. 5, line 61). Specific examples are ,e.g., magnesium stearate, calcium carbonate, fumed silica and talc.

It should be noted that Cherukuri is consistent throughout the specification and claims as regards the compression aid being applied as outlined above, i.e. by way of blending with the granulation prior to compression (Cherukuri, col. 1, line 12; col. 2, lines 62-63; col. 3, lines 56-57; col. 11, lines 1-2; col. 11, lines 44-46; col. 12, lines 43-46; col. 12, line 67-68; col. 13, lines 52-57; col. 14, lines 34-39).

Secondly the teaching of Cherukuri regarding texture resembling conventional chewing gum of tabletted chewing gum will be explained.

A person of ordinary skill in the art reading Cherukuri would find that (col. 1, lines 16-18):

Conventional chewing gum compositions are difficult to form into chewing gum tablets because of their moisture content.

According to Cherukuri, when dealing with conventional chewing gum compositions, there are three possibilities when attempting to make tabletted chewing gum (col. 1, lines 57-66 and col. 2, lines 64-68):

- either freezing the chewing gum composition,
- changing the conventional formulations to have lower moisture contents, or
- blending of compression aid into the chewing gum composition

In Cherukuri, the last option is presented as the invention (col. 2, lines 59-63):

It has surprisingly been found that a conventional chewing gum composition having a moisture content of about 2% to about 8% by weight can be granulated utilizing a grinding aid and subsequently blending the resultant granulation with a compression aid.

From Cherukuri, it would thus be apparent that a tabletted chewing gum comprising a conventional chewing gum composition can be prepared and that the quality of this can be improved by providing a certain moisture content and applying substantial amounts of compression aid to the composition. The person of ordinary skill in the art would not receive any further hints about reaching a tabletted chewing gum having a texture resembling conventional chewing gum.

Hinzpeter et al. (US 5,643,630) is directed to a method of depositing dosed quantities of pulverized lubricants or parting compounds on the materials contacting surfaces of pressing tools of tableting machines. Hinzpeter has no disclosure of chewing gum at all.

Starting from Cherukuri et al., a person of ordinary skill in the art would know that for providing tabletted chewing gum *"any conventional chewing gum composition of the prior art may be used providing it has a moisture content of about 2% to about 8%"* (Cherukuri, col. 6, lines 8-11).

Clearly, Cherukuri is not concerned with improvements of the formulation of the gum base and chewing gum. Cherukuri is concerned with implementation of chewing gum compositions having a moisture content of 2% to 8% and solving the problems caused by the moisture. According to Cherukuri these problems are solved by blending the granulated chewing gum composition with compression aid (Cherukuri, col. 2, lines 59-63). Provided that the moisture content is 2% to 8%, any composition can be applied according to Cherukuri, and thus, Cherukuri does not provide any teaching about how to achieve a tabletted chewing gum having a texture resembling conventional chewing gum.

For many years it has been well-known that compressed chewing gum has a more crumbly texture, especially during the initial chewing, as compared to conventionally mixed and cut chewing gum. In the pending application, the need for obtaining compressed chewing gum tablets resembling conventional chewing gum with respect to texture has been addressed.

Cherukuri does not address the texture problems associated with compressed chewing gum and does not teach, motivate or suggest a person skilled in the art to reduce the amount of compression aid materials in the chewing gum formulation. On the contrary, Cherukuri teaches to mix or blend this kind of materials with the granules before the compression step forming the final tablet (Cherukuri, col. 3, lines 7-16). A person of ordinary skill in the art would not be motivated to deviate from this teaching, as problems with sticking and flowability would be expected. According to Cherukuri, blending of compression aid with the chewing gum granules is required in order to achieve a free flow granulation (col. 5, lines 11-14).

There is no teaching, motivation or suggestion in Cherukuri leading a person of ordinary skill in the art to preserving a moderated tackiness of gum base granules as provided in the present invention by way of diminishing the need for compression aid materials in the blend of granules prior to compression. Even if the skilled person would seek to reduce the need for compression aid blended with the granules, there would be no hints in Cherukuri that a barrier layer of compression aid materials encapsulating the chewing gum center could solve the problem to thereby provide a compressed chewing gum with an improved texture.

In paragraphs no. 6 and 7, paper no. 20100218 the Examiner acknowledges that Cherukuri is silent as to:

- (a) the gum center being encapsulated by the barrier layer

(b) the improved and sticky texture of the tablet resulting from the inclusion of the natural resin.

However, as seen from the above arguments, it should be clear that there are further differences not acknowledged by the examiner between Cherukuri and the present invention.

First of all that Cherukuri is very clear on the need for adding substantial amounts of compression aid into the chewing gum composition.

Second of all, that Cherukuri is not concerned with which ingredients are used in the chewing gum composition – actually any composition can be applied if only the moisture content is suitable.

Third of all, Cherukuri does not disclose gum base granules but instead chewing gum granules.

In relation to (a), the Examiner states that (paragraph no. 9, paper no. 20100218):

One of ordinary skill in the art at the time the invention was made wishing to improve the compressed tablet of Cherukuri et al the process by which it was made by providing a barrier layer using less magnesium stearate or other lubricant, would have found it obvious to employ the tableting method of Hinzpeter et al for tableting the chewing gum....

Applicant respectfully objects to the assumption that a person of ordinary skill in the art would have a wish to improve the compressed tablet by providing a barrier layer as he/she could not have a wish of improving by something that he/she did not know would be an improvement.

Indeed Cherukuri does not suggest encapsulation of a chewing gum center by a barrier layer.

The barrier layer of the present invention may comprise, e.g., lubricants. The incorporation of lubricants in the barrier layer diminishes the need for lubricants in the chewing gum composition. This leads to moderated tackiness of the gum base granules since the individual gum base granules are influenced by lubricants to a much smaller extent than is the case in the prior art chewing gum tablets.

Cherukuri et al. does not give any hints regarding a barrier layer comprising lubricants, anti-adherents and/or glidants. On the contrary, Cherukuri is directed towards substantial amounts of compression aids in the compressible composition, up to 15% by weight of the chewing gum tablet.

The moderated tackiness of the gum base granules of the present invention is not addressed by Cherukuri. The long-felt need to obtain compressed chewing gum tablets resembling conventional chewing gum with respect to cohesion of the chewing gum formulation is solved by the present invention by diminishing the need for lubricants, anti-adherents and glidants in the compressible chewing gum formulation, thereby promoting inter-particle cohesion of the gum base-containing chewing gum granules.

The idea of providing a barrier layer is, as also recognized by the Examiner, not apparent from Cherukuri, and it is respectfully submitted that in fact there is neither any teaching, suggestion, or motivation in Cherukuri to encapsulate the compressed chewing gum tablet within a barrier layer comprising at least one of lubricants, anti-adherents and glidants, thereby facilitating a moderated tackiness of the gum base granules.

Therefore, a person of ordinary skill in the art would have to either

- provide this idea on his/her own, which the Applicant respectfully submits would go beyond the level of ordinary skill in the art, or

- find a teaching of a barrier layer within the prior art. However, as the patent by Hinzpeter does not mention chewing gum or any gum-like material for that matter, Applicant respectfully submits that there are a huge number of documents on this level of relevance and a person of ordinary skill in the art would not have any motivation to turn to this exact document.

Even if the skilled person should somehow be aware of Hinzpeter, he/she would refrain from applying this method as he/she would, based on his knowledge of chewing gum stickiness, not expect that the method would be applicable when dealing with chewing gum, and moreover because

- either, the lubricant added according to Hinzpeter would be additional to the already added amount according to Cherukuri, and this would compromise the achievements in these inventions of keeping a certain moisture content,

- or, the lubricant added according to Hinzpeter would be taken from the amount of lubricant originally intended for addition into the chewing gum composition in accordance with Cherukuri. This again would compromise the clear teaching about blending the compression aid into the chewing gum composition in order to avoid it being necessary to either lower the moisture content or apply freezing of the chewing gum composition (Cherukuri, col. 1, lines 57-66)

Moreover, a person of ordinary skill in the art consulting Hinzpeter would recognize that the benefits of applying the method of Hinzpeter would be a reduced amount of pressure in the

compression step (Hinzpeter, col. 2, lines 50-51) and apparently would have nothing to do with improving a chewing gum texture.

However, an unexpected and advantageous effect obtained by the present invention is that encapsulating the chewing gum center by a barrier layer actually provides the possibility of reducing the amount of compression aid within the tablet and obtaining that the incorporated natural resin provides an improved and sticky texture to the tablet.

In relation to (b), the Examiner states that (paragraph no. 6, paper no. 20100218)

Regarding claim 1, Cherukuri et al. are silent as to the “improved and sticky” texture of the tablet resulting from the inclusion of the natural resin. However, as the invention of Cherukuri et al. comprises the same ingredients as claimed by Applicants in substantially similar amounts, this improved texture would have been expected to be present in the invention of Cherukuri et al. absent convincing arguments or evidence to the contrary.

The Applicant respectfully traverse the Examiners conclusion, because the Examiner’s contention that Cherukuri comprises the same ingredients as claimed by Applicants in similar amounts cannot overcome the fact that the resulting texture would NOT be the same, because according to the Applicant’s invention, compression aid is located in a barrier layer encapsulating the chewing gum center. This means that even if the ingredients and amounts of ingredients should be exactly the same, at least some of the compression aid, which in Cherukuri is part of the chewing gum composition, will in the present invention NOT be part of the chewing gum composition because it is located in the barrier layer instead. Consequently, the improved texture would not on this background have been expected to be present in the invention of Cherukuri.

Even though the Examiner's conclusion is hereby already traversed, Applicant is also respectfully contesting the mere statement that "*the invention of Cherukuri comprises the same ingredients as claimed by Applicants*".

In fact, Cherukuri does not disclose any gum base granules and does not disclose one single example of a gum base or chewing gum composition in which natural resin is forming part. In paragraph no. 30, paper no. 20100218, the examiner refers to Table 1 of Cherukuri et al. as disclosing a composition comprising gum base which is granulated. This paragraph is the response to the argument from the Applicant that Cherukuri does not disclose gum base granules as in the present invention. Consequently, it seems that the examiner apparently is considering the granules from Table 1 to be gum base granules. In response to this, it is noted that from the description of Cherukuri in total, it is very clear that the mentioned granules are chewing gum granules (e.g. col. 1, line 12, col. 2, line 67, col. 3, line 55, col. 4, line 12, col. 5, line 23, col. 5, line 27, col. 5, line 48, col. 8, line 54, etc.). Consequently, Table 1 merely discloses that in an example of chewing gum granules, these contain gum base, sweeteners and softening agent. Since gum base granules are granules of gum base and NOT chewing gum ingredients such as sweeteners and softeners, it is still maintained that Cherukuri does not disclose gum base granules.

Furthermore it is acknowledged that some of the same ingredients are mentioned in Cherukuri as in the present invention. However, the basic elements of chewing gum have been the same for several years and as such this likeliness of possible ingredients is not surprising. Consequently, the discovery of unexpected effects from specific combinations or uses of these ingredients, such as improvements in texture, are indeed surprising and non-obvious.

In the present application natural resin incorporated in at least a part of the gum base granules and the encapsulating of the chewing gum center by a barrier layer actually provides the possibility of reducing the amount of compression aid within the tablet and thereby obtain that the incorporated natural resin provides an improved and sticky texture to the tablet.

Moreover, it is noted that the mentioning of natural resin in Cherukuri is only found in a listing in general terms, and here it is stated that “*the gum base comprises natural or synthetic rubbers or elastomers*” (Cherukuri, col. 6, lines 14-15). Furthermore, it is worth noticing that Cherukuri states that the gums or elastomers are useful as gum bases (Cherukuri, col. 6, lines 17-18). In other words it is clear that according to Cherukuri the *gum bases are suitable even without any resins at all*.

For the sake of completeness, it is noted that Hinzpeter obviously does not provide any teaching relating to natural resin, texture etc. since Hinzpeter is not related to chewing gum.

The argument from the Applicant that Cherukuri et al. do not speak to a barrier layer of lubricant improving the compressed tablet, has been rejected by the examiner in paragraph no. 24, paper no. 20100218. Here the examiner rejects this with reference to *Ex parte Obiaya*, 227 USPQ 58, 60 (*Bd. Pat. App. & Inter. 1985*) stating that another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.

In short, the essence of *Ex parte Obiaya*, 227 USPQ 58, 60 (*Bd. Pat. App. & Inter. 1985*) is that the prior art taught combustion fluid analyzers which used labyrinth heaters to maintain the samples at a uniform temperature. Although appellant showed that an unexpectedly shorter response time was obtained when a labyrinth heater was employed, the Board held this

advantage would flow naturally from following the suggestion of the prior art. In this specific case of Obiaya a new advantage was observed by directly doing what was stated in a single prior art document without making amendments. If such effect was to be patented, it would mean that an existing product as described in the prior art would actually infringe the new claim.

Consequently, it seems reasonable why it was deemed that such advantage cannot be basis for patentability. However, it seems improper by the Examiner to refer to this decision in relation to the present application in order to defend why two documents from very distant fields with very different scopes and teachings should be combinable. Indeed neither Cherukuri nor Hinzpeter discloses a product from which the advantages in relation to the present application can be seen; on the contrary a specific combination according to present claim 1 has to be made to be able to observe whether any advantages arise.

In summary the present invention differs from Cherukuri in a number of important aspects. Cherukuri is not concerned with which ingredients are used in the chewing gum composition. Consequently, there is no teaching relating to the inclusion of natural resin and therefore no indication of that such inclusion may lead to an improved and sticky texture of the tablet.

Even though Cherukuri is not concerned with which ingredients are used in the chewing gum composition, it is clear that substantial amounts of compression aid are added into the chewing gum composition. That this could be avoided by the use of a barrier layer to encapsulate the gum center can not be seen from Cherukuri.

As mentioned above a combination with Hinzpeter as carried out by the examiner is respectfully contested by the Applicant. However, even if such combination is carried out, no

teaching can be found of content of chewing gum composition, for which the barrier layer and the natural resin are central elements according to the present invention.

Consequently, it would not be obvious to a person of ordinary skill in the art to prepare a compressed chewing gum tablet according to present claim 1 comprising a chewing gum center fully or partly encapsulated by a barrier layer; said gum center comprising a compression of gum base granules and chewing gum additives; said gum base granules having a moderated tackiness obtained by at least one natural resin incorporated in at least a part of the gum base granules, wherein the natural resin provides an improved and sticky texture to the tablet; and wherein said barrier layer comprises at least one of lubricants, anti-adherents, or glidants, and wherein said barrier layer is provided during the manufacturing of the chewing gum tablet.

Accordingly, the rejections under 35 U.S.C. 103(a), based upon Cherukuri et al. in view of Hinzpeter have been overcome and should be withdrawn.

2) Claims 28-31

Present claim 28 is directed to a method of providing a compressed chewing gum, wherein the method of providing the compressed chewing gum comprises the step of mixing of at least one elastomer and at least one plasticizer into a homogeneous gum base; where said gum base comprises about 5% to 75% by weight of natural resin. Further the method comprises the step of granulating the gum base; blending the granulated gum base with chewing gum additives; depositing a barrier layer on at least a part of a chewing gum center formed by gum base granules and chewing gum additives; and compressing the mixture into a tablet.

As compared to present claim 1, present claim 28 also involves the elements of a chewing gum center fully or partly encapsulated by a barrier layer, where the gum center is a compression

of gum base granules and chewing gum additives, and where the barrier layer is provided during the manufacturing of the chewing gum tablet. Also claim 28 involves that the gum base granules contains natural resin (in claim 28 the amount is even given to be 5-75% by weight)

In summary the central elements of claims 1 and 28 are the same, and consequently, the arguments set forth above in relation to claim 1 will apply as well for claim 28.

Accordingly, the rejections under 35 U.S.C. 103(a), based upon Cherukuri et al. in view of Hinzpeter have been overcome and should be withdrawn.

B. Claims 1, 3-5, 8-12, 14-19, and 28-32 are not properly rejected under 35 U.S.C. 103(a) over Yang (EP 0 221 850) in view of Hinzpeter et al. (US 5,643,630)

The Examiner has improperly rejected claims 1, 3-5, 8-12, 14-19, and 28-32 under 35 U.S.C. §103(a) as being unpatentable over Yang (EP 0 221 850) in view of Hinzpeter et al. (US 5,643,630). A summary of these rejections follows:

According to the rejection as set forth in paragraphs no. 13 and 14, paper no. 20100218, it is noted that Yang is silent as to the "improved and sticky" texture of the tablet resulting from the inclusion of the natural resin. However, the examiner contends that as the invention of Yang comprises the same ingredients as claimed by Applicants in substantially similar amounts, this improved texture would have been expected to be present in the invention of Yang absent convincing arguments or evidence to the contrary. However, the examiner acknowledges that Yang is silent as to the gum center being encapsulated by the barrier layer.

According to the rejection as set forth in paragraphs no. 16, paper no. 20100218, the examiner contends, that one of ordinary skill in the art at the time the invention was made

wishing to improve the compressed tablet of Yang the process by which it was made by providing a barrier layer using less magnesium stearate or other lubricant, would have found it obvious to employ the tableting method of Hinzpeter et al. for tableting the chewing gum of Yang in order to provide a tabletted chewing gum with a barrier layer while requiring less lubricant and reducing the wear on the production equipment. The examiner further contends that the use of magnesium stearate as a barrier layer for tabletted materials, as taught by Hinzpeter et al., instead of mixing with the granulated chewing gum material as taught by Yang, would have been an obvious improvement of the prior art method at the time the invention was made.

According to the rejections as set forth in paragraph no. 22, paper no. 20100218, the Examiner contends that applicant's remarks regarding that Hinzpeter et al. is non analogous art is inappropriate with reference to *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The examiner states that Yang et al. is in the field of tabletted chewing gums, and Hinzpeter et al. is in the field of tableting materials, and that as Hinzpeter et al. speak to lubricants commonly used in tableting devices, such as those that would have been used in tableting chewing gums, all of the references are considered to be pertinent to the particular problem with which Applicant was concerned.

According to the rejections as set forth in paragraph no. 24, paper no. 20100218, the examiner responds to Applicant's argument that Yang does not speak to a barrier layer of lubricant improving the compressed tablets, by stating that the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious with reference to *Exparte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In paragraph no. 25, paper no. 20100218, the examiner states that while the prior art may not have recognized the effects on the texture of the chewing gum, as noted by the instant invention, there is motivation in the prior art to modify the tableting process. This motivation the examiner believes is found in teachings of Hinzpeter, where the examiner contends that a barrier layer in the tableting process would have been expected to reduce the amount of lubricant (i.e. stearates) used in the tablet, as well as reduce the wear on the tableting machinery.

In paragraph no. 28, paper no. 20100218, the examiner states:

Arguments against Cherukuri et al. and Yang et al. where the texture of their chewing gum compositions would not be the same are not persuasive as the arguments do not take into consideration that the combination of Cherukuri et al. or Yang et al. with Hinzpeter et al. provides for the barrier layer to be encapsulating the chewing gum portion, not mixed in with the gum components. Both Cherukuri et al. and Yang et al. disclose stearates as the lubricating materials.

Before addressing the arguments from the examiner, Applicant would like to state some general thoughts regarding the combination of the prior art documents as done by the examiner.

Prior art document Yang related to tabletted chewing gum has been drawn up, and Applicant agrees that such documents would form a relevant teaching for a person of ordinary skill in the art seeking to prepare a tabletted chewing gum.

However, as regards the patent by Hinzpeter, it should be noted that this is found within a different technical field, not related to chewing gum, but relating to tableting in general. Also, none of the classifications by search classes of Hinzpeter are overlapping with those of Yang.

It can be argued, of course, that the teachings of tableting in general are relevant for tabletted chewing gum, but it should be kept in mind that the character of chewing gum base materials is very different from conventional tabletted materials and moreover that both

conventional chewing gum and tableting in general have been known for many years without tabletted chewing gum on the market. In recent times, however, Applicant has succeeded in providing a compressed, i.e. tabletted, chewing gum with a texture resembling conventional chewing gum and brought it to the market.

It is noted that the Examiner with reference to *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) states that “*As Hinzpeter et al. speak to lubricants commonly used in tableting devices, such as those that would have been used in tableting chewing gums, all of the references are considered to be pertinent to the particular problem with which Applicant was concerned*” and hence a combination between the field of compressed chewing gum and the field of tableting devices is sought justified.

The Applicant does not agree and its arguments regarding the huge difference between these two fields still stand; however, even if the documents in question are combined, Applicant respectfully states that this will not lead to the present invention, which is strongly supported by its arguments herein.

1) Claims 1, 3-5, 8-12, 14-19, 32

Yang (EP 0 221 850) is directed to a tabletted chewing gum containing one or more active ingredients, including flavorants, which are entrapped or encapsulated in a delivery system and to a method for preparing a tabletted chewing gum (Yang, page 1, lines 1-3).

Yang is less detailed than Cherukuri about the process of tableting. Yang is focused on details about the delivery system, which is incorporated in the disclosed tablets, and refers to conventional procedures when it comes to the preparation and manufacturing of the tablets.

However, according to Yang, the pressed tablets are preferably prepared by dry granulation or a direct compression method. Mixing with lubricants before the compression step is explicitly stated for the dry granulation technique (Yang, page 5, lines 32-34) and is also apparent for the direct compression method as it is stated that the milled ingredients are mixed and then directly compressed and that such ingredients primarily include sweeteners, lubricants, etc (Yang, page 5, lines 34-37).

A person of ordinary skill in the art reading Yang would, as in Cherukuri, not be able to find information on how to obtain a texture in tabletted chewing gum resembling that of conventional chewing gum. Yang confirms the possibilities of freezing the chewing gum composition or altering the composition and confirms the mixing with lubricants into the chewing gum composition (Yang, page 5, lines 34-37), but mainly Yang is concerned with employing a delivery system for active ingredients to thereby eliminate plasticization of the gum base (Yang page 2, lines 47-51).

Hinzpeter et al. (US 5,643,630) is directed to a method of depositing dosed quantities of pulverized lubricants or parting compounds on the materials contacting surfaces of pressing tools of tableting machines. Hinzpeter has no disclosure of chewing gum at all.

Starting from Yang, a person of ordinary skill in the art would know that "*The gum base may be any water-soluble gum base well known in the art*" (Yang, page 5, line 38).

Most likely water *in-soluble* is meant; however, from this sentence it is very clear, that Yang is not concerned with improvements of the formulation of the gum base and chewing gum. It is further noted that claim 1 of Yang reads simply that the chewing gum composition comprises *a gum base*. Yang is instead concerned with encapsulation of active ingredients in

delivery systems and methods for preparing chewing gum where such encapsulated ingredients are added.

According to Yang this is solved by, e.g., using lubricants in the tablet formulations (Yang, page 6, line 16). Any water-(in)soluble gum base well known in the art can be applied according to Yang, and thus, Yang does not provide any teaching about how to achieve a tabletted chewing gum having a texture resembling conventional chewing gum.

For many years it has been well-known that compressed chewing gum has a more crumbly texture, especially during the initial chewing, as compared to conventionally mixed and cut chewing gum. In the pending application, the need for obtaining compressed chewing gum tablets resembling conventional chewing gum with respect to texture has been addressed.

Yang does not address the texture problems associated with compressed chewing gum and does not teach, motivate or suggest a person skilled in the art to reduce the amount of compression aid materials in the chewing gum formulation. On the contrary, Yang teaches to mix or blend this kind of materials with the granules before the compression step forming the final tablet (Yang, page 5, lines 34-37). A person of ordinary skill in the art would not be motivated to deviate from this teaching, as problems with sticking and flowability would be expected.

There is no teaching, motivation or suggestion in Yang leading a person of ordinary skill in the art to preserving a moderated tackiness of gum base granules as provided in the present invention by way of diminishing the need for compression aid materials in the blend of granules prior to compression. Even if the skilled person would seek to reduce the need for compression aid blended with the granules, there would be no hints in Yang that a barrier layer of

compression aid materials encapsulating the chewing gum center could solve the problem to thereby provide a compressed chewing gum with an improved texture.

In paragraphs no. 13 and 14, paper no. 20100218 the Examiner acknowledges that Yang is silent as to:

- (a) the gum center being encapsulated by the barrier layer
- (b) the improved and sticky texture of the tablet resulting from the inclusion of the natural resin.

However, as seen from the above arguments, it should be clear that there are further differences not acknowledged by the examiner between Yang and the present invention.

First of all that Yang indicates the addition of lubricants in amounts up till 5% by weight in tablet formulations to the chewing gum composition.

Second of all, that Yang is not concerned with which ingredients are used in the chewing gum composition – actually any water-(in)soluble well-known gum base can be applied.

In relation to (a), the Examiner states that (paragraph no. 16, paper no. 20100218)

One of ordinary skill in the art at the time the invention was made wishing to improve the compressed tablet of Yang, and the process by which it was made, would have found it obvious to employ the tableting method of Hinzpeter et al for tableting the chewing gum....

Applicant respectfully objects to this assumption. First of all, a person of ordinary skill in the art would see no need from Yang to make improvements to the chewing gum as the purpose of this document is fulfilled. Second of all, as previously noted, the skilled person within the chewing gum field would never search for improvements within a distant field; it is noted that none of the classifications by search classes of Hinzpeter are overlapping with those of Yang.

It can be argued, of course, that the teachings of tableting in general are relevant for tableted chewing gum, but it should be kept in mind that the character of chewing gum base materials is very different from conventional tableted materials and moreover that both conventional chewing gum and tableting in general have been known for many years without tableted chewing gum on the market. In recent times, however, Applicant has succeeded in providing a compressed, i.e. tableted, chewing gum with a texture resembling conventional chewing gum and brought it to the market.

Indeed Yang does not suggest encapsulation of a chewing gum center by a barrier layer.

The barrier layer of the present invention may comprise, e.g., lubricants. The incorporation of lubricants in the barrier layer diminishes the need for lubricants in the chewing gum composition. This leads to moderated tackiness of the gum base granules since the individual gum base granules are influenced by lubricants to a much smaller extent than is the case in the prior art chewing gum tablets.

Yang does not give any hints regarding a barrier layer comprising lubricants, anti-adherents and/or glidants. On the contrary, Yang uses considerable amounts of lubricants in the chewing gum composition, up to 5% by weight of the total composition.

The moderated tackiness of the gum base granules of the present invention is not addressed by Yang. The long-felt need to obtain compressed chewing gum tablets resembling conventional chewing gum with respect to cohesion of the chewing gum formulation is solved by the present invention by diminishing the need for lubricants, anti-adherents and glidants in the compressible chewing gum formulation, thereby promoting inter-particle cohesion of the gum base-containing chewing gum granules.

The idea of providing a barrier layer is, as also recognized by the Examiner, not apparent from Yang, and it is respectfully submitted that in fact there is neither any teaching, suggestion, or motivation in Yang to encapsulate the compressed chewing gum tablet within a barrier layer comprising at least one of lubricants, anti-adherents and glidants, thereby facilitating a moderated tackiness of the gum base granules.

Therefore, a person of ordinary skill in the art would have to either

- provide this idea on his/her own, which the Applicant respectfully submits would go beyond the level of ordinary skill in the art, or

- find a teaching of a barrier layer within the prior art. However, as the patent by Hinzpeter does not mention chewing gum or any gum-like material for that matter, Applicant respectfully submits that there are a huge number of documents on this level of relevance and a person of ordinary skill in the art would not have any motivation to turn to this exact document.

Even if the skilled person should somehow be aware of Hinzpeter, he/she would refrain from applying this method as he/she would, based on his knowledge of chewing gum stickiness, not expect that the method would be applicable when dealing with chewing gum, and moreover because

- either, the lubricant added according to Hinzpeter would be additional to the already added amount according to Yang, and this would compromise the achievements in these inventions of keeping a certain moisture content,

- or, the lubricant added according to Hinzpeter would be taken from the amount of lubricant originally intended for addition into the chewing gum composition in accordance with Yang. This again would compromise the clear teaching about blending the compression aid into

the chewing gum composition in order to avoid it being necessary to either lower the moisture content or apply freezing of the chewing gum composition (Yang, page 1, lines 14-16).

Moreover, a person of ordinary skill in the art consulting Hinzpeter would recognize that the benefits of applying the method of Hinzpeter would be a reduced amount of pressure in the compression step (Hinzpeter, col. 2, lines 50-51) and apparently would have nothing to do with improving a chewing gum texture.

However, an unexpected and advantageous effect obtained by the present invention is that encapsulating the chewing gum center by a barrier layer actually provides the possibility of reducing the amount of compression aid within the tablet and obtaining that the incorporated natural resin provides an improved and sticky texture to the tablet.

In relation to (b), the Examiner states that (paragraph no. 13, paper no. 20100218):

Regarding claim 1, Yang is silent as to the “improved and sticky” texture of the tablet resulting from the inclusion of the natural resin. However, as the invention of Yang comprises the same ingredients as claimed by Applicants in substantially similar amounts, this improved texture would have been expected to be present in the invention of Yang absent convincing arguments or evidence to the contrary.

The Applicant respectfully traverse the Examiner’s conclusion, because the Examiner’s contention that Yang comprises the same ingredients as claimed by Applicants in similar amounts cannot overcome the fact that the resulting texture would NOT be the same, because according to the Applicant’s invention, compression aid is located in a barrier layer encapsulating the chewing gum center. This means that even if the ingredients and amounts of ingredients should be exactly the same, at least some of the compression aid, which in Yang is part of the chewing gum composition, will in the present invention NOT be part of the chewing

gum composition because it is located in the barrier layer instead. Consequently, the improved texture would not on this background have been expected to be present in the invention of Yang.

Even though the Examiner's conclusion is hereby already traversed, Applicant is also respectfully contesting the mere statement that "*the invention of Yang comprises the same ingredients as claimed by Applicants*".

In fact, Yang discloses two examples of gum base content, namely example 1 and 2. In example 1 the gum base is butyl rubber and in example 2 the gum base is styrene butadiene rubber. In other words, Yang does not disclose one single example of a gum base or chewing gum composition in which natural resin is forming part.

Furthermore it is acknowledged that some of the same ingredients are mentioned in Yang as in the present invention. However, the basic elements of chewing gum have been the same for several years and as such this likeliness of possible ingredients is not surprising. Consequently, the discovery of unexpected effects from specific combinations or uses of these ingredients, such as improvements in texture, are indeed surprising and non-obvious.

In the present application natural resin incorporated in at least a part of the gum base granules and the encapsulating of the chewing gum center by a barrier layer actually provides the possibility of reducing the amount of compression aid within the tablet and thereby obtain that the incorporated natural resin provides an improved and sticky texture to the tablet.

Moreover, it is noted that the mentioning of natural resin in Yang is only found in a listing in general terms, and here it is very clear that a number of ingredients are mentioned without any kind of preference (Yang, page 5, lines 38-53). Furthermore, it is worth noticing that the wording and the examples in combination teaches that a gum base may consist of only on

polymer, from the examples this is butyl rubber and styrene butadiene rubber, in other words it is clear that according to Yang *gum bases are suitable even without any resins at all*.

For the sake of completeness, it is noted that Hinzpeter obviously does not provide any teaching relating to natural resin, texture etc. since Hinzpeter is not related to chewing gum.

The argument from the Applicant that Cherukuri et al. do not speak to a barrier layer of lubricant improving the compressed tablet, has been rejected by the examiner in paragraph no. 24, paper no. 20100218. Here the examiner rejects this with reference to *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985) stating that another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.

In short, the essence of *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985) is that the prior art taught combustion fluid analyzers which used labyrinth heaters to maintain the samples at a uniform temperature. Although appellant showed that an unexpectedly shorter response time was obtained when a labyrinth heater was employed, the Board held this advantage would flow naturally from following the suggestion of the prior art. In this specific case of Obiaya a new advantage was observed by directly doing what was stated in a single prior art document without making amendments. If such effect was to be patented, it would mean that an existing product as described in the prior art would actually infringe the new claim. Consequently, it seems reasonable why it was deemed that such advantage cannot be basis for patentability. However, it seems improper by the Examiner to refer to this decision in relation to the present application in order to defend why two documents from very distant fields with very different scopes and teachings should be combinable. Indeed neither Cherukuri nor Hinzpeter

discloses a product from which the advantages in relation to the present application can be seen; on the contrary a specific combination according to present claim 1 has to be made to be able to observe whether any advantages arise.

In summary the present invention differs from Yang in a number of important aspects. Yang is not concerned with which ingredients are used in the gum base composition. Consequently, there is no teaching relating to the inclusion of natural resin and therefore no indication of that such inclusion may lead to an improved and sticky texture of the tablet.

Furthermore there is no indication in Yang that any advantages could be obtained with avoiding lubricants in the composition and instead use a barrier layer to encapsulate the gum center.

As mentioned above a combination with Hinzpeter as carried out by the examiner is respectfully contested by the Applicant. However, even if such combination is carried out, no teaching can be found of content of gum base composition, for which the barrier layer and the natural resin are central elements according to the present invention.

Consequently, it would not be obvious to a person of ordinary skill in the art to prepare a compressed chewing gum tablet according to present claim 1 comprising a chewing gum center fully or partly encapsulated by a barrier layer; said gum center comprising a compression of gum base granules and chewing gum additives; said gum base granules having a moderated tackiness obtained by at least one natural resin incorporated in at least a part of the gum base granules, wherein the natural resin provides an improved and sticky texture to the tablet; and wherein said barrier layer comprises at least one of lubricants, anti-adherents, or glidants, and wherein said barrier layer is provided during the manufacturing of the chewing gum tablet.

Accordingly, the rejections under 35 U.S.C. 103(a), based upon Yang in view of Hinzpeter have been overcome and should be withdrawn.

2) Claims 28-31

Present claim 28 is directed to a method of providing a compressed chewing gum, wherein the method of providing the compressed chewing gum comprises the step of mixing of at least one elastomer and at least one plasticizer into a homogeneous gum base; where said gum base comprises about 5% to 75% by weight of natural resin. Further the method comprises the step of granulating the gum base; blending the granulated gum base with chewing gum additives; depositing a barrier layer on at least a part of a chewing gum center formed by gum base granules and chewing gum additives; and compressing the mixture into a tablet.

As compared to present claim 1, present claim 28 also involves the elements of a chewing gum center fully or partly encapsulated by a barrier layer, where the gum center is a compression of gum base granules and chewing gum additives, and where the barrier layer is provided during the manufacturing of the chewing gum tablet. Also claim 28 involves that the gum base granules contains natural resin (in claim 28 the amount is even given to be 5-75% by weight)

In summary the central elements of claims 1 and 28 are the same, and consequently, the arguments set forth above in relation to claim 1 will apply as well for claim 28.

Accordingly, the rejections under 35 U.S.C. 103(a), based upon Yang in view of Hinzpeter have been overcome and should be withdrawn.

In summary and in light of the foregoing, Applicants respectfully request that the pending rejections be reversed, and that the pending claims be allowed in their present form.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. Compressed chewing gum tablet comprising:
a chewing gum center fully or partly encapsulated by a barrier layer;
said gum center comprising a compression of gum base granules and chewing gum additives;
said gum base granules having a moderated tackiness obtained by at least one natural resin incorporated in at least a part of the gum base granules, wherein the natural resin provides an improved and sticky texture to the tablet; and
wherein said barrier layer comprises at least one of lubricants, anti-adherents, or glidants, and wherein said barrier layer is provided during the manufacturing of the chewing gum tablet.
2. (cancelled)
3. Compressed chewing gum tablet according to claim 1, wherein the compressed chewing gum tablet comprises about 3% to 50% by weight of natural resins.
4. Compressed chewing gum tablet according to claim 1, wherein the compressed chewing gum tablet comprises about 0.5% to 30% by weight of elastomers.
5. Compressed chewing gum tablet according to claim 1, wherein the compressed chewing gum tablet comprises about 0.1% to 15% by weight of flavoring agents.
- 6.-7. (cancelled)
8. Compressed chewing gum tablet according to claim 1, wherein the barrier layer comprises magnesium stearate.

9. Compressed chewing gum tablet according to claim 1, wherein said barrier layer comprises at least one of metallic stearates, hydrogenated vegetable oils, partially hydrogenated vegetable oils, polyethylene glycols, polyoxyethylene monostearates, animal fats, silicates, silicates dioxide, talc, magnesium stearates, calcium stearates, fumed silica, powdered hydrogenated cottonseed oils, hydrogenated vegetable oils, hydrogenated soya oil and mixtures thereof.
10. Compressed chewing gum tablet according to claim 1, wherein the gum center is substantially free of lubricants, anti-adherents and glidants.
11. Compressed chewing gum tablet according to claim 1, wherein the gum center comprises wax.
12. Compressed chewing gum tablet according to claim 1, wherein the gum center is substantially free of wax.
13. (cancelled)
14. Compressed chewing gum according to claim 1, wherein said natural resin comprises rosin esters.
15. Compressed chewing gum according to claim 1, wherein said natural resin comprises at least one of glycerol esters of partially hydrogenated rosins, glycerol esters of polymerised rosins, glycerol esters of partially dimerised rosins, glycerol esters of tall oil rosins, pentaerythritol esters of partially hydrogenated rosins, methyl esters of rosins, partially hydrogenated methyl esters of rosins or pentaerythritol esters of rosins.
16. Compressed chewing gum according to claim 1, wherein said chewing gum additives comprises sweeteners in an amount of from about 5 to about 95% by weight of the chewing gum tablet.

17. Compressed chewing gum according to claim 5, wherein at least a part of the flavoring agents has been torn into the gum base previous to compression.
18. Compressed chewing gum according to claim 1, wherein said chewing gum additives comprise active ingredients.
19. Compressed chewing gum according to claim 4, wherein at least a part of said active ingredients has been torn into the gum base previous to compression.
- 20.-27. (cancelled)
28. Method of providing a compressed chewing gum comprising:
mixing at least one elastomer and at least one plasticizer into a homogeneous gum base;
said gum base comprising about 5% to 75% by weight of natural resin;
granulating the gum base;
blending the granulated gum base with chewing gum additives;
depositing a barrier layer on at least a part of a chewing gum center formed by gum base granules and chewing gum additives; and
compressing the mixture into a tablet.
29. Method of providing a compressed chewing gum according to claim 28, wherein at least a part of the gum base is premixed with flavor.
30. Method of providing a compressed chewing gum according to claim 28, wherein said gum additives comprise active ingredients.

31. Method of providing a compressed chewing gum according to claim 28, wherein the barrier layer comprises at least one of metallic stearates, hydrogenated vegetable oils, partially hydrogenated vegetable oils, polyethylene glycols, polyoxyethylene monostearates, animal fats, silicates, silicates dioxide, talc, magnesium stearates, calcium stearates, fumed silica, powdered hydrogenated cottonseed oils, hydrogenated vegetable oils, hydrogenated soya oil and mixtures thereof.
32. Chewing gum tablet according to claim 1, wherein the chewing gum tablet has a water content of less than about 2.0% by weight of the chewing gum tablet.
33. (cancelled)

IX. Evidence Appendix

None presented.

X. RELATED PROCEEDINGS APPENDIX

No decisions by either the Board or any court have been rendered in proceeding identified in section II of this paper.